

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A method for equalizing optical signal power in a group of optical signals transmitted through an optical switch in an optical transmission system, the method comprising:

inputting a group of optical signals into an optical switch;

defining a user selected power range; and

attenuating selected optical signals in the group of optical signals such that the signal power of each optical signal in the group of optical signals falls within the user selected power range.

Claim 2 (original): A method as in Claim 1 wherein defining a user selected power range includes:

monitoring the optical power of the group of optical signals;

determining the optical power of the weakest signal the group of optical signals, thereby defining a baseline optical power level;

implementing a user selected power margin in combination with the baseline optical power level to define the user selected power range; and

wherein attenuating selected optical signals in the group of optical signals comprises attenuating the optical power of signals which fall outside the user selected power range such that the signal power of each optical signal in the group of optical signals falls within the user selected power range.

Claim 3 (original): A method as in Claim 2 wherein the user selected power margin is freely adjustable by a system user.

Claim 4 (original): A method as in Claim 2 wherein implementing a user selected power margin in combination with the baseline optical power level to define the user selected power range includes implementing a user selected power margin of about 1 dBm

Claims 5-7 (cancelled).

Claim 8 (original): A method for equalizing optical signal power in a group of optical signals transmitted through an optical switch in an optical transmission system, the method comprising:

- inputting a group of optical signals into an optical switch; and
- attenuating selected optical signals in the group of optical signals such that a more uniform power distribution is achieved among the group of optical signals.

Claims 9-29 (cancelled).

Claim 30 (original): A method for equalizing optical signal power in a group of optical signals transmitted through an optical switch in an optical transmission system, the method comprising:

- inputting a plurality of optical signals into an optical switch;
- measuring output the optical power of the plurality of optical signals after they are passed through the optical switch;
- selecting a group of optical signals from among the plurality of optical signals in the optical switch;
- user selecting an optical power margin;
- determining a power range; and
- attenuating selected optical signals in the group of optical signals such that the signal power of each optical signal in the group of optical signals falls within the power range.

Claim 31 (new): A method for equalizing optical signal power in a group of optical signals transmitted through an optical switch in an optical transmission system, the method comprising:

inputting a plurality of optical signals into an optical switch;

defining a power range;

switching at least one of the plurality of optical signals to a desired output port using a switching apparatus; and

attenuating selected optical signals of the plurality of optical signals by using the switching apparatus to attenuate the selected optical signals such that the signal power of each optical signal in the plurality of optical signals falls within the power range.

Claim 32 (new): A fiber optic switching device enabling the switching of optical signals and the selective attenuation of optical signals, the device comprising:

an input fiber array;

an output fiber array; and

an optical switch that includes at least one reflector array configured such that a light beam input into the switch from the input fiber array can be reflected by the at least one reflector array into a desired output fiber in the output fiber array as an output beam and configured so that adjustments to the at least one reflector array selectively attenuate the optical power of the light beam until output beam attains a desired optical power level.

Claim 33 (new): The fiber optic switching device of Claim 32 wherein the input fiber array and the output fiber array comprises a single fiber array.

Claim 34 (new): The fiber optic switching device of Claim 32 wherein the at least one reflector array selectively attenuates the optical power of the light beam by detuning at least one of the reflectors of the at least one reflector array until the output beam attains a desired optical power level.

Claim 35 (new): The fiber optic switching device of Claim 34 wherein the detuning of the at least one of the reflectors attenuates the optical power of said output beam by sub-optimally coupling the output beam to an output fiber of the output fiber array.

Claim 36 (new): The fiber optic switching device of Claim 32 further including a control element that facilitates switching of the light beam from the input fiber array to the desired output fiber and facilitates the selective attenuation of output beam until it attains a desired optical power level.

Claim 37 (new): The fiber optic switching device of Claim 36 further including a detector for measuring the optical power of the output beam and outputting an associated signal that is received by the control element which uses the signal to determine the amount of attenuation required in the output beam so that it can attain the desired optical power level.

Claim 38 (new): The fiber optic switching device of Claim 32 wherein the device is configured such that optical signals input by the input fiber array into the optical switch are selectively attenuated by the optical switch so that a more uniform power distribution is achieved among the optical signals.

Claim 39 (new): The fiber optic switching device of Claim 38 wherein the device further includes:

a monitor element for monitoring the optical power of the optical signals;

circuitry for determining the optical power of the weakest signal of the optical signals, thereby defining a baseline optical power level, wherein the circuitry implements a user selected power margin in combination with the baseline optical power level to define a user selected power range, and

wherein the circuitry selectively attenuates the optical power of optical signals that fall outside the user selected power range such that the signal power of each optical signal falls within the user selected power range.